

# LArSoft Coordination Meeting

*Release and project report*

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on behalf of  
the SciSoft team  
*Fermilab*

February 23, 2021

# Today's agenda and speakers

- Release and project report (Erica)
- EventWeight interface to Genie v3 (Steven Gardiner)
- Discussion of (soon to be) new LArSoft build system (Marc Mengel, Chris Green)
- AOB

# Releases

- Last few weeks
  - v09\_14\_00 released Jan 21, 2021
    - New features
      - [larpandoracontent#17](#): introduce daughter volume tracking to prevent matching of incompatible clusters
      - [larpandora#15](#): linked to above
      - [lardataobj#11](#): provided for serializing `art::Ptr<recob::Cluster>>`
      - [lardata#13](#): allow rang-for loop on `associate_groups_with_left()` output. Add C++17 aware unit test
      - [larrecodnn#14](#): Add separate label for SimChannel needed for ProtoDUNE sim
    - Bug fixes
      - [larreco#26](#): include missing config in `clustermdules.fcl`.
      - [webev#18](#): fix issues with view numbers and axis labels

# Releases

- Last few weeks
  - v09\_15\_00 released Jan 27
    - New features
      - [larg4#21](#): link new artg4tk custom physics lists
      - [larg4#20](#): add FHiCL config with standard configuration for larg4Main module
      - [webevd#19](#): splits data to be transferred into several JSON files. Create images on demand
      - [larsim#59](#): reconfigure PDFastSimPAR to remove PhotonVisibilityService and LArG4Parameters services. Allow multiple instances with different optical property configs
        - *Noted that this is a step toward eliminating PVS and enabling multi-threading*
    - Bug fixes
      - [lardataalg#21](#): fix larproperties.fcl

# Releases

- Last few weeks
  - v09\_16\_00 released Feb 4
    - **First release with art 3.06**
      - Feature branches for experiments in [feature/team\\_for\\_art\\_v3\\_06](#)
  - v09\_16\_01 released Feb 11
    - New features
      - [webevd#20, 21, 22, 23](#): preserve ED settings when navigating between events. Add display of OpFlash. Add mode to show RawDigit and recob::Wires as time series
      - [larpandoracontent#18](#): make use of PandoraMonitoring API
    - Bug fixes
      - [larrecodnn#15](#): PointIdTrainingData written and disposed of asap. Work-around for [issue #25476](#)

# Releases

- Last few weeks
  - v09\_17\_00 released Feb 17
    - New features
      - [larrecodnn#17](#): overhaul handling of labels
      - [larpandoracontent#19](#): new visualization tools for MCParticles and PFOs
      - [larsim#60](#): SimEnergyDeposit support in MergeSimSources
      - [larsim#62](#): new toy larg4 detector in refactored larg4. New noise and response functions in SimWire\_module
      - [webevd#24](#): Work-around to represent  $inf/nan$  in JSON
      - [webevd#25](#): Serialization calls to gallery::Event made through thread-safe wrapper
      - [webevd#27](#): Add MCTruth text to display
      - [webevd#28](#): Fix mixmerge in traces code, and protection against  $inf/nan$  hit times
    - Bug fixes
      - [larreco#27](#): fix in PFPUtills

# Releases

- This week
  - Updates to nugen, nuevdb, nug4, geant4reweight, nusystematics, ...
  - Approved PRs

# Status of PRs

- Approvals in progress
  - [larsim#63](#): Add DoFastComponent option to PDFastSimPAR

# Status of PRs

- Under discussion
  - [larcorealq#13](#): Geometry can tell TPC closest to an optical detector  
(opened Nov 30, 2020)
    - Community questions arose as to exactly what questions needed to be answered
    - Meeting held. Discussion on-going.
  - [larsimdnn#1](#): Check-in first photon fast simulation module based on GAN

## Other changes coming up

- Tensorflow
  - Upgrading from v1 to v2.3
  - Request from DUNE to do this as soon as possible
  - Might have implications for other experiments, so please advise
- Ubuntu support
  - A request opened recently to shift from LTS 18 to LTS 20
  - Seeking feedback on plan to do this as soon as possible

*Note that Ubuntu releases provided on “best effort” basis, typically only on request*

The end